

1
Ag84A.b
Cop. 2



Farmers' Expenditures for HEALTH CARE in 1955



AGRICULTURE INFORMATION BULLETIN No. 191
Agricultural Marketing Service
UNITED STATES DEPARTMENT OF AGRICULTURE

PREFACE

This report provides current and comprehensive information on farm family expenditures for health and medical care in the United States. It is made possible by the Survey of Farmers' Expenditures in 1955, conducted cooperatively by the U. S. Department of Agriculture and the U. S. Bureau of the Census.

Plans for the survey were made by Ray Hurley of the Bureau of the Census, Nathan M. Koffsky, Earl E. Houseman, B. Ralph Stauber, Emerson Brooks, and Margaret Jarman Hagood of the Agricultural Marketing Service, and by Gertrude S. Weiss, formerly of the Agricultural Research Service. Principal responsibility for the project was carried by Albert R. Kendall, Bruno A. Schiro, and Ward Henderson of the Agricultural Marketing Service. Emily O. Stewart made an important contribution in the preparation and analysis of the data for this report.

The first report from the survey, Farmers' Expenditures for Farm Living and Production, was published cooperatively by the Bureau of the Census and the Department of Agriculture as Volume III, part 11 of the 1954 Census of Agriculture in December 1956. The second report, Farmers' Expenditures in 1955 by Regions, and the third, Trends and Patterns in Levels of Living of Farm Families in the United States, were released early in 1958. Other reports and papers based on data from the survey are in various stages of preparation.

June 1958

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

LIST OF CHARTS

| Figure | | Page |
|--------|--|------|
| 1 | Items of health care most frequently reported by farm-operator families in 1955 | 4 |
| 2 | Regions and geographic divisions used in reporting data from the special cooperative survey of farm-operator family expenditures | 6 |
| 3 | Expenditures for family living of farm-operator families, 1955 | 10 |
| 4 | Cost of individual items of health care to farm-operator families having the specified expense, 1955 | 15 |
| 5 | How farm-operator families spent their health dollars in 1955 | 17 |
| 6 | Distribution of farm-operator families by amount of expenditures for health care, 1955 | 26 |
| 7 | What health care cost each farm-operator family member in 1955 | 31 |

CONTENTS

| | <u>Page</u> |
|---|-------------|
| List of charts | 11 |
| List of tables..... | iv |
| Summary | 1 |
| Scope and purpose of the study | 2 |
| The types and cost of health care received by farm families | 2 |
| Type of health care expenditures | 3 |
| Regional variation | 3 |
| Variations within regions | 7 |
| Aggregate annual expenditures for health care | 8 |
| Average expenditures for health care | 11 |
| Regional variation | 13 |
| Variations within regions | 14 |
| Distribution of health care expenditures by individual items | 16 |
| Regional variation | 16 |
| Selected factors related to expenditures of farm families for health care | 18 |
| Health care expenditures related to economic group of farm | 18 |
| Health care expenditures related to age of farm operator | 20 |
| Health care expenditures related to farm family living expenditures | 22 |
| Health care expenditures related to total cost of health care | 25 |
| Health care expenditures related to size of family | 28 |
| Appendix. Methods and procedure of the special cooperative survey of farmers' expenditures | 32 |

LIST OF TABLES

| <u>Table</u> | | <u>Page</u> |
|--------------|---|-------------|
| 1 | Percentage of farm-operator families reporting specific items of health care expenditures, United States, regions, and geographic divisions, 1955 | 5 |
| 2 | Aggregate expenditures of farm-operator families for specific items of health care, United States, regions, and geographic divisions, 1955 | 9 |
| 3 | Average expenditures of farm-operator families for specific items of health care, United States, regions, geographic divisions, 1955 | 12 |
| 4 | Average expenditures of farm-operator families for specific items of health care by economic group of farm, United States, 1955 | 19 |
| 5 | Percentage distribution of farm-operator family expenditures for health care by item according to economic group of farm, United States, 1955 | 19 |
| 6 | Average expenditures of farm-operator families for specific items of health care by age of operator, United States, 1955 | 21 |
| 7 | Percentage distribution of farm-operator family expenditures for health care by item according to age of operator, United States, 1955 | 21 |
| 8 | Average expenditures of farm-operator families for specific items of health care by total family living expenditures, United States, 1955 | 23 |
| 9 | Percentage distribution of farm-operator family expenditures for health care by item according to total family living expenditures, United States, 1955 | 24 |
| 10 | Average expenditures of farm-operator families for specific items of health care by total expenditures for health, United States, 1955 | 27 |
| 11 | Percentage distribution of farm-operator family expenditures for health care by item according to total expenditures for health care, United States, 1955 | 29 |
| 12 | Average expenditures of farm-operator families for health care services by size of economic family, United States, 1955 | 30 |
| 13 | Percentage distribution of farm-operator family expenditures for health care services according to size of economic family, United States, 1955 | 30 |

FARMERS' EXPENDITURES FOR HEALTH CARE IN 1955

By Alvin L. Bertrand and Donald G. Hay

Farm Population and Rural Life Branch
Agricultural Economics Division
Agricultural Marketing Service

SUMMARY

Data collected in 1955 in connection with the special cooperative Survey of Farmers' Expenditures indicate the items of health care farm families buy most frequently and what they spend for such care. Eighty-five percent of the farm families in the United States bought nonprescribed drugs in 1955 and three-fourths of them had a direct expense for the services of physicians (other than surgeons). At least half of all farm families also had a direct expenditure for prescribed drugs, services of dentists, and health insurance during the year. A fifth or more of the families had expenses in connection with hospital care, vitamins and mineral tablets, and eye tests and glasses.

In 1955, farm families of the United States spent a little more than 1.1 billion dollars on health care. About one-quarter of this bill (\$282 million) was paid directly to physicians and surgeons. Approximately \$131 million was spent on dentists, about \$150 million was paid directly to hospitals, \$200 million was spent on health insurance, \$138 million on prescription drugs, \$40 million on nonprescribed drugs, and \$25 million on vitamins and mineral tablets.

The average annual expenditures of farm families on health care was \$240 in 1955. On the average, more was spent per family for physicians excluding surgeons, (\$49) than for any other item. By comparison, expenditures averaged \$28 per family for dentists, \$11 for surgeons, \$31 for hospitals, \$42 for health insurance, and \$29 for prescribed drugs.

Patterns of regional variations are evident in connection with the health expenditures of farm families. Farmers of the South do not generally use the various items of health care as much as farmers of the North and West. But the largest part of the total bill for health care was paid by Southern farm families, as there are more of them. Farm families residing in the Western Region spent considerably more per family, on the average, for health care than did families in the North and South.

Survey data were tabulated to show the relationship of expenditures of farm families for health care to selected socio-economic factors. Analyses of these tables show that: (1) Families on larger commercial farms spend more for health care; (2) families where the farm operator is 35-54 years of age have the highest expense for health care; (3) outlays for health increase as family living expenses increase; (4) the health bill of the largest number of families ranged from \$100-\$199; (5) families with five members have the highest health care bills.

SCOPE AND PURPOSE OF THE STUDY

Health is of great concern, not only to the individual, his family, and his community but to the country at large. The health of a population has social and economic significance over and beyond the immediate problems that relate to the prevention and alleviation of human suffering. The manpower of a population can be reduced by ill health, both directly and indirectly. A study of a large population group that has less access to health and medical care services than other groups--the farm population of the United States--is the subject of research upon which the present report is based. The purpose of the study is to shed light on national patterns of farm family expenditures for health services.

Studies of family expenditures for health and medical care have been reported in publications of the United States Department of Agriculture, United States Department of Health, Education, and Welfare, United States Department of Labor, Health Information Foundation, and many colleges and universities. This study provides data on current farm family expenditures for making national and regional comparisons by relating certain socio-economic factors to expenditures for health items. Specific objectives are: (1) To ascertain the expenditures of farm families for various types of health and medical care services, including voluntary health insurance; (2) to discover regional patterns and variations in expenditures for these services; (3) to analyze the socio-economic factors related to the outlays by farm families for health and medical care services in rural areas; and (4) to develop information that can be used by communities and by public and private agencies to improve the health care of rural people. The methods and procedure of the survey through which the data were collected are explained in the appendix.

THE TYPES AND COST OF HEALTH CARE RECEIVED BY FARM FAMILIES 1/

Many questions arise regarding the type of health care farmers buy and how much they pay for it. The first part of the present report is devoted to answering these questions. The first section concerns itself with the type of care bought, the second is devoted to a discussion of the total amount spent for this care, the third is given over to a description of per family costs of various items of health care, and the fourth is concerned with how the farm family divides its health dollar. The analyses include discussions of regional as well as national data. Significant variations in regional expenditures are high-lighted. Included in the analyses are 16 individual items of expenditure.

1/ In this study the farm family is defined as that group of people who occupy the same dwelling and are related financially by pooling their income and drawing from the common fund for the things they buy. The group includes the operator, his wife, his never-married children, and other persons not paying board (exclusive of domestic or farm laborers) living in the household and dependent upon the farm operator.

Type of Health Care Expenditures 2/

Only 1 percent of the farm families reported no expenditures for health items during 1955. Two types of health care were bought much more frequently than others (figure 1). Nonprescribed drugs, such as patent medicines, aspirin, and ointment, were reported as an item of health expenditure by the largest proportion of families (85 percent). Services of physicians other than surgeons were reported as an item of medical expense by the second largest percentage of farm families (74 percent).^{3/} Almost three-fifths (58 percent) of the families reported expenses for prescribed drugs, 54 percent had expenses for dentists, and about half (51 percent) purchased some type of health insurance.

Study of the remaining items of health care expenditure shows significant patterns (table 1). In 1955, a third (34 percent) of the farm families of the nation had an expenditure for eye tests and glasses. Vitamins or mineral tablets of some type, or both, were bought by 29 percent of these families, and a fifth (21 percent) had direct expenditures for hospital care for one or more of their members. The latter figure indicates a growing trend for farmers and their families to use hospitals and other health facilities. Some 13 percent of the farm operators reported their families had to spend money for medical supplies (such as vaporizers and thermometers) and appliances (such as braces and artificial limbs). One out of every eight families had expenditures for laboratory tests and X-rays. Unallocated items of expenditure were reported by about 4 percent of the families.^{4/} Nine percent of the families had an expense for a surgeon's services during the year. Six percent had expenses for osteopaths. Expenditures for nurses were reported by only 2 percent of the families, and 8 percent of them had a bill for the services of chiropractors, midwives, or other health care practitioners. Only 2 percent of the families had ambulance expenses during the year.

Regional variations

Certain patterns of variation are apparent in a study of regional differences in type of health care purchased by farmers in 1955.^{5/} Although farm

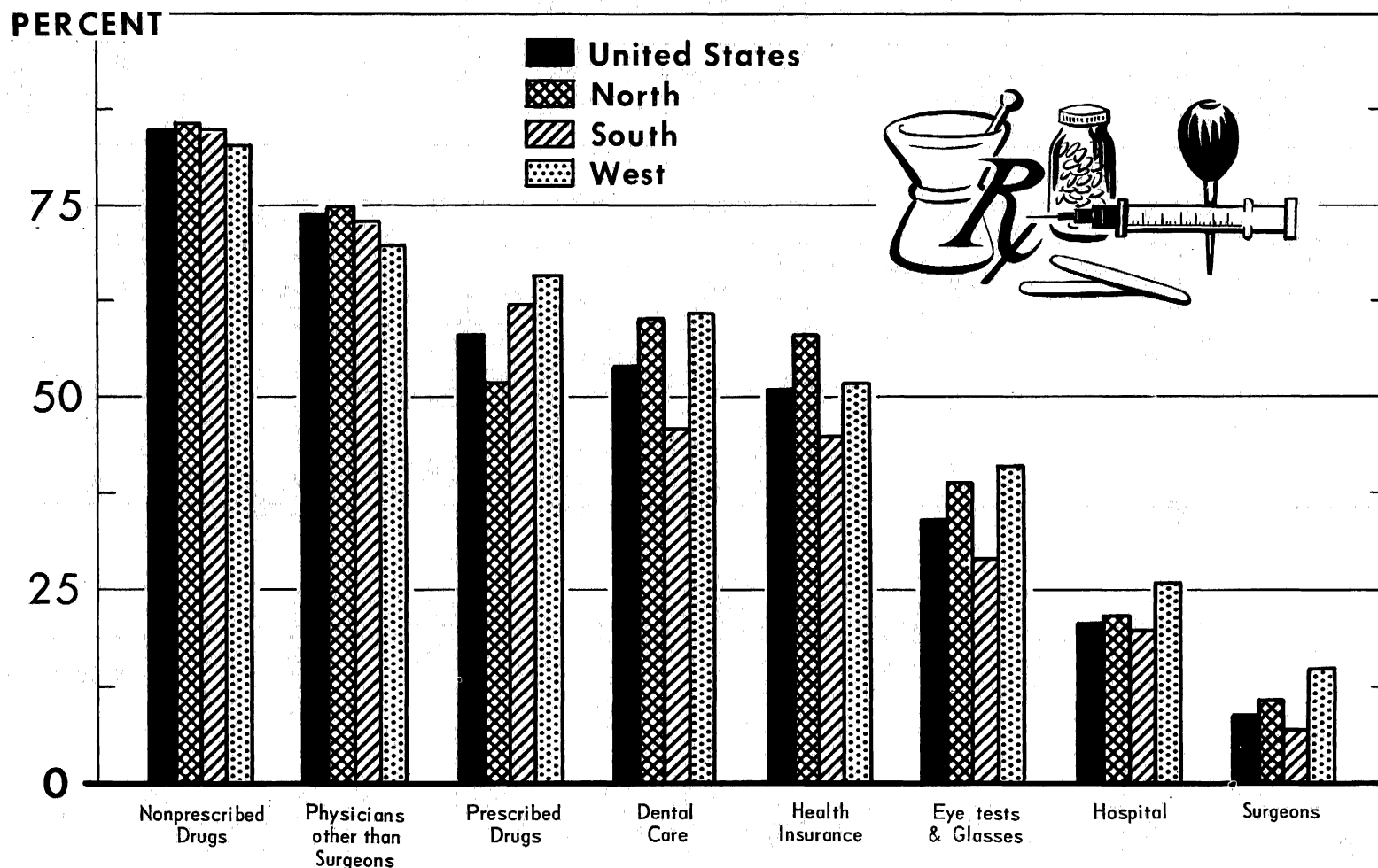
^{2/} The expenditures recorded included the total money expense incurred in 1955, whether or not all payment was made during the year.

^{3/} Surgeons were tabulated separately from other M. D.'s.

^{4/} In some instances interviewers reported combined expenses for two or more items because they could not identify specific charges. These expenses are shown as unallocated expenditures. It may be noted that hospital, surgeons', and other physicians' charges were reported in combination most frequently.

^{5/} The regions here used are coextensive with the three major Census Regions, except that Maryland and Delaware are included in the Northern rather than the Southern Region (figure 2).

ITEMS OF HEALTH CARE MOST FREQUENTLY REPORTED BY FARM-OPERATOR FAMILIES IN 1955



U. S. DEPARTMENT OF AGRICULTURE

NEG. 4961-58(3) AGRICULTURAL MARKETING SERVICE

Figure 1

Table 1.--Percentage of farm-operator families reporting specific items of health care expenditures, United States, regions, and geographic divisions, 1955 ^{1/}

| Area | Surgeons | Other : physi- : cians, : M. D. : | Dental : care : | Osteo- : paths : | Nursing : care : | Other : practi- : tioners : | Hospital : care : | Laboratory : tests : and : X-rays |
|-------------------------------|------------------------------|--|---|--|---------------------|--------------------------------------|---|--|
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| United States..... | 9 | 74 | 54 | 6 | 2 | 8 | 21 | 12 |
| Regions | | | | | | | | |
| North ^{2/} | 11 | 75 | 60 | 10 | 1 | 11 | 22 | 14 |
| South..... | 7 | 73 | 46 | 2 | 2 | 4 | 20 | 9 |
| West..... | 15 | 70 | 61 | 11 | 2 | 12 | 26 | 20 |
| Geographic divisions | | | | | | | | |
| Northeast ^{2/} | 12 | 78 | 55 | 6 | 2 | 9 | 19 | 14 |
| East North Central.... | 8 | 79 | 60 | 9 | 1 | 10 | 21 | 13 |
| West North Central.... | 12 | 70 | 63 | 12 | 1 | 13 | 25 | 14 |
| South Atlantic..... | 9 | 73 | 45 | 1 | 3 | 3 | 22 | 7 |
| East South Central.... | 6 | 72 | 47 | 1 | 1 | 5 | 15 | 8 |
| West South Central.... | 7 | 74 | 47 | 3 | 1 | 6 | 22 | 12 |
| Mountain..... | 13 | 69 | 61 | 10 | 2 | 13 | 27 | 18 |
| Pacific..... | 16 | 71 | 62 | 12 | 2 | 11 | 25 | 22 |
| | Pre- : scribed : drugs | Nonpre- : scribed : drugs | Vitamins : and : mineral : tablets | Supplies : and : appli- : ances | Ambu- : lance : | Eye : tests : and : glasses | Unallo- : cated : expend- : itures ^{3/} | Voluntary : health : insurance |
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| United States..... | 58 | 85 | 29 | 13 | 2 | 34 | 4 | 51 |
| Regions | | | | | | | | |
| North ^{2/} | 52 | 86 | 38 | 15 | 2 | 39 | 4 | 58 |
| South..... | 62 | 85 | 19 | 10 | 3 | 29 | 5 | 45 |
| West..... | 66 | 83 | 44 | 15 | 1 | 41 | 4 | 52 |
| Geographic divisions | | | | | | | | |
| Northeast ^{2/} | 52 | 82 | 30 | 18 | 3 | 40 | 4 | 68 |
| East North Central.... | 46 | 87 | 45 | 10 | 2 | 39 | 4 | 62 |
| West North Central.... | 57 | 87 | 35 | 17 | 1 | 38 | 3 | 50 |
| South Atlantic..... | 62 | 79 | 16 | 7 | 4 | 24 | 5 | 47 |
| East South Central.... | 57 | 88 | 18 | 12 | 2 | 28 | 6 | 44 |
| West South Central.... | 66 | 88 | 26 | 13 | 2 | 36 | 4 | 43 |
| Mountain..... | 65 | 88 | 43 | 17 | 1 | 42 | 2 | 52 |
| Pacific..... | 67 | 79 | 45 | 13 | 2 | 39 | 6 | 52 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

^{2/} Includes Delaware and Maryland.

^{3/} In some instances, interviewees reported combined expenditures for two or more items because they could not identify specific charges. These expenditures are shown as unallocated expenditures.

REGIONS AND GEOGRAPHIC DIVISIONS USED IN REPORTING DATA FROM THE SPECIAL COOPERATIVE SURVEY OF FARM-OPERATOR FAMILY EXPENDITURES

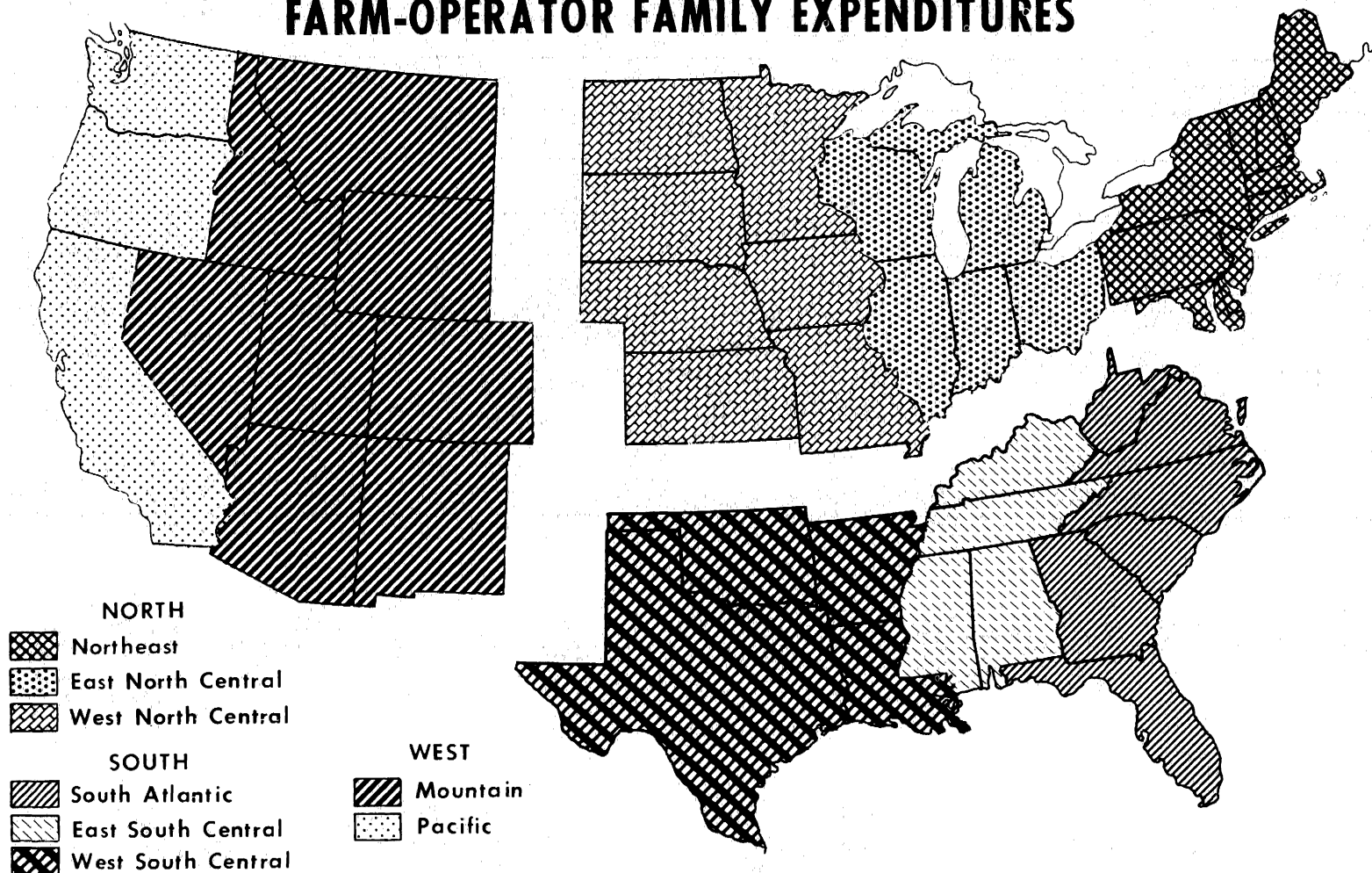


Figure 2

people of the South did not generally have expenditures for the various items of health care as frequently as farmers in the North and West, there are certain departures from this pattern. There is, for example, no great difference between the three major regions in the percentage of farm families using non-prescribed drugs and physicians other than surgeons. However, relatively fewer families from the South had expenses for a dentist.

Surgeons, osteopaths, and other health care practitioners are used less frequently by southerners than by farm people in the North and West. However, more southern and western farmers than northern farmers bought prescribed drugs in 1955. The data on expenditures for vitamins and mineral tablets and for laboratory tests and X-rays indicate these items are not bought as frequently by farm families in the South as they are by the farmers of the North and of the West. The same is true for eye tests and glasses. Southern farmers also did not have expenses for medical supplies and appliances in the same proportionate numbers as farmers in other parts of the country. There are only minor regional differences in the relative number of farm families having expenditures for the remainder of the health care items enumerated, with the exception of health insurance. Southerners apparently either place less reliance on prepaid health plans than do farmers in other regions, or they have less opportunity to participate in such plans.

Variations within regions

The estimates for geographic divisions are subject to relatively large sampling errors and the descriptions in this and following sections are limited to the most reliable items (see appendix). Within major regions, a certain degree of deviation in patterns of health expenditures is found, although in most instances it is less pronounced than differences among regions (table 1). Beginning with the Northern Region, the percentage of farmers living in the East North Central Geographic Division who reported expenditures for vitamins and mineral tablets was larger than the percentages reporting these expenditures in other geographic divisions of the region, ^{6/} but a smaller percentage reported expenses for other medical supplies and appliances, surgeons, and prescribed drugs. Farm families in the Northeast who reported expenditures for dentists in 1955 were fewer in number than those in the other two divisions of the Northern Region, but more reported having health insurance policies. More families in the West North Central Division said they had hospital and prescribed drug expenses than those in the Northeast or in the East North Central Division, but fewer of them laid claim to cash outlays for health insurance.

^{6/} The eight geographic divisions here used are coextensive with the nine Census Divisions, except that the New England and Middle Atlantic Geographic Divisions, including Maryland and Delaware, were combined to form the Northeast Region (figure 2).

In the South, the only pronounced subregional variations are the relatively few farm families in the South Atlantic Division having expenses for supplies and appliances, the relatively few families in the East South Central Division having direct expenditures for hospital care, and the relatively large number of families in the West South Central Division having expenses for laboratory tests and X-rays.

The two Western Geographic Divisions show essentially the same health care expenditure patterns for farmers, with the exception that proportionately more families from the Mountain Division bought nonprescribed drugs.

Aggregate Annual Expenditures for Health Care

In 1955, farm families of the United States spent a little more than \$1.1 billion on health care (table 2). Farm families spent more in the aggregate on only four other major living necessities--housing, food, clothing, and transportation (figure 3). They spent more for health care than for personal care, recreation, reading, and education combined. ^{7/}

What proportion of the millions of dollars spent by farm families on health went for specific types of care? This question is answered in the discussion that follows. The largest slice of the aggregate expenditures of farmers for health care was paid to physicians other than surgeons. Farm families spent \$231 million--a fifth of all their health expenditures--for the services of physicians (table 2). With fees paid directly to surgeons added, the amount increases to more than \$282 million. Just over \$131 million was spent on dentists.

Approximately \$200 million was spent by farm families for voluntary health insurance and prepaid plans of medical care in 1955. This sum, representing 18 percent of the total amount spent for health care by farmers, is in sharp contrast to the 5 percent spent on prepaid medical care by this occupational group in 1941. ^{8/} Several factors undoubtedly contributed to the striking change in the pattern of voluntary health insurance spending. One was that there were, of course, many more opportunities to buy such health insurance in 1955 than 15 years earlier.

Direct hospital expenses accounted for nearly \$150 million of the aggregate farm family health bill in 1955. This amount would be considerably higher were it not for the fact that health insurance, in many cases, paid part or all the hospital bills. Also, a large part of the unallocated costs are for hospital care. The growth in the number of hospitals in rural areas plus improved transportation has brought the facilities of hospitals within the reach of an increasing number of rural people.

^{7/} See: "Farmers' Expenditures for Farm Living and Production," U. S. Census of Agriculture: 1945, Vol. III, Special Reports, part 11, Washington, D. C., 1956.

^{8/} Jean L. Pennock, "Changes in Family Spending - Medical Care," U. S. Department of Agriculture, A.R.S., Institute of Home Economics, Washington, D. C., Nov. 1957.

Table 2.--Aggregate expenditures of farm-operator families for specific items of health care, United States, regions, and geographic divisions, 1955 ^{1/}

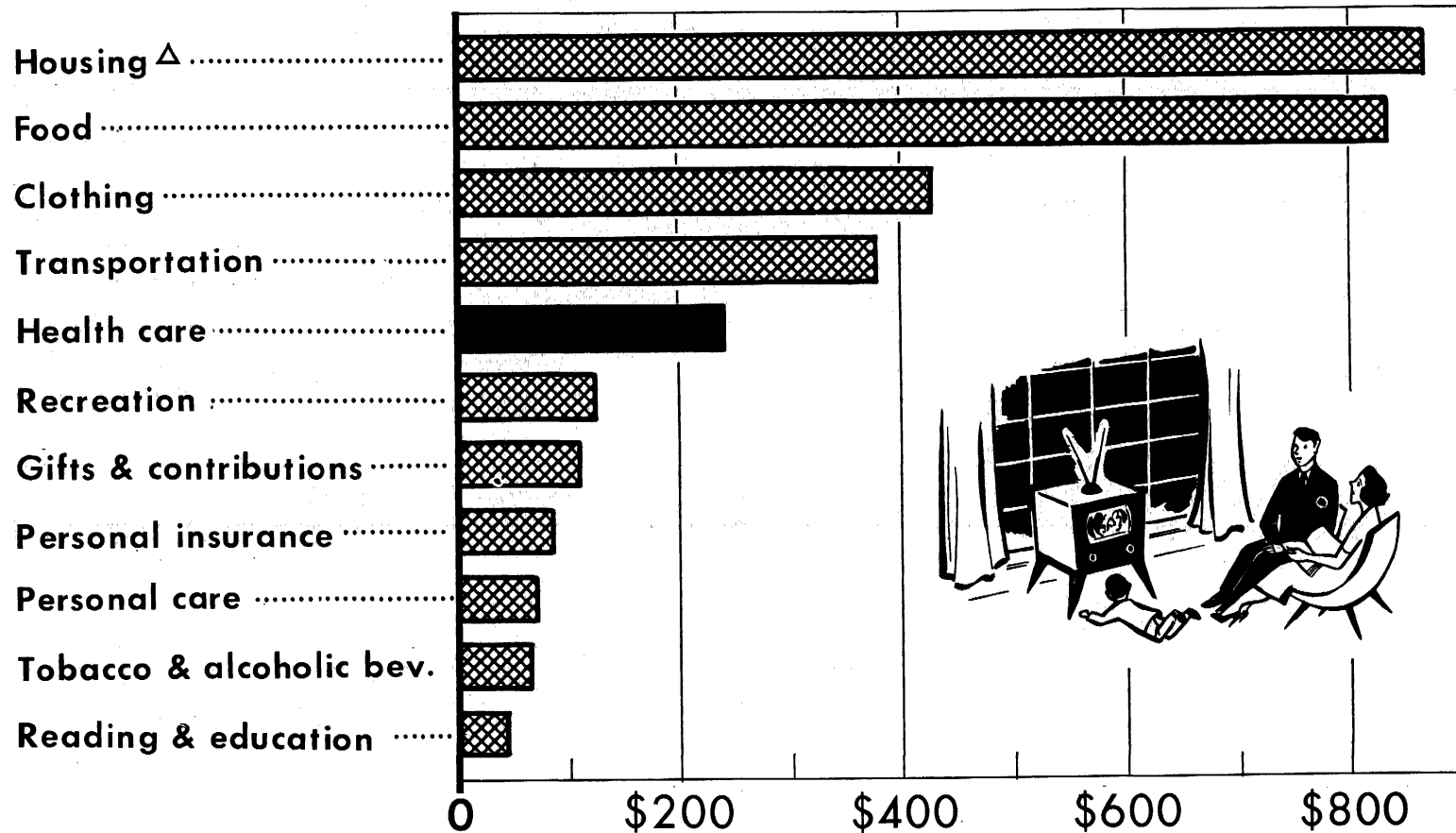
| Area | Total expenditures | Surgeons | Other physicians, M. D. | Dental care | Hospital care | Laboratory tests and X-rays | |
|--------------------------|--------------------|----------------------|------------------------------|-------------------------|-----------------------|-----------------------------|---------------------------|
| | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | |
| United States | 1,143,235 | 51,448 | 230,975 | 131,126 | 149,425 | 14,265 | |
| Regions | | | | | | | |
| North 2/..... | 497,339 | 23,021 | 99,813 | 63,818 | 56,889 | 6,706 | |
| South | 505,667 | 16,801 | 107,767 | 46,344 | 73,941 | 5,201 | |
| West | 140,229 | 11,626 | 23,395 | 20,964 | 18,595 | 2,358 | |
| Geographic divisions | | | | | | | |
| Northeast 2/..... | 91,614 | 4,819 | 16,240 | 12,717 | 10,898 | 1,111 | |
| East North Central | 194,679 | 6,732 | 41,435 | 25,644 | 18,299 | 2,821 | |
| West North Central | 211,046 | 11,470 | 42,138 | 25,457 | 27,692 | 2,774 | |
| South Atlantic | 199,514 | 7,045 | 41,686 | 15,171 | 33,365 | 1,585 | |
| East South Central | 145,561 | 5,482 | 33,461 | 15,988 | 13,920 | 1,265 | |
| West South Central | 160,592 | 4,274 | 32,620 | 15,185 | 26,656 | 2,351 | |
| Mountain | 54,072 | 4,596 | 8,269 | 7,012 | 8,381 | 820 | |
| Pacific | 86,157 | 7,030 | 15,126 | 13,952 | 10,214 | 1,538 | |
| | Prescribed drugs | Non-prescribed drugs | Vitamins and mineral tablets | Supplies and appliances | Eye tests and glasses | Voluntary health insurance | All other expenditures 3/ |
| | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| United States | 137,870 | 39,800 | 25,419 | 7,548 | 57,352 | 201,133 | 96,874 |
| Regions | | | | | | | |
| North 2/ | 45,981 | 15,563 | 12,301 | 3,000 | 27,529 | 101,594 | 41,044 |
| South | 75,922 | 20,641 | 8,584 | 3,207 | 22,177 | 77,754 | 47,328 |
| West | 15,967 | 3,596 | 4,534 | 1,261 | 7,646 | 21,785 | 8,502 |
| Geographic divisions | | | | | | | |
| Northeast 2/ | 7,480 | 2,646 | 2,114 | 895 | 5,313 | 21,319 | 6,062 |
| East North Central | 15,132 | 6,428 | 5,830 | 855 | 11,034 | 42,210 | 18,259 |
| West North Central | 23,369 | 6,489 | 4,357 | 1,330 | 11,182 | 38,065 | 16,723 |
| South Atlantic | 30,716 | 6,421 | 2,009 | 863 | 6,626 | 30,433 | 23,594 |
| East South Central | 21,044 | 6,985 | 2,080 | 1,452 | 7,041 | 23,822 | 13,021 |
| West South Central | 24,162 | 7,235 | 4,495 | 892 | 8,510 | 23,499 | 10,713 |
| Mountain | 6,437 | 1,537 | 1,684 | 448 | 3,240 | 8,645 | 3,003 |
| Pacific | 9,530 | 2,059 | 2,850 | 813 | 4,406 | 13,140 | 5,499 |

^{1/} Only direct, out-of-pocket expenditures of farm families are included.

^{2/} Includes Delaware and Maryland.

^{3/} Includes osteopaths, nursing care, other practitioners, ambulance, and unallocated expenditures.

EXPENDITURES FOR FAMILY LIVING OF FARM-OPERATOR FAMILIES, 1955*



*DIRECT EXPENDITURES ONLY

Δ INCLUDES HOUSE FURNISHINGS, FUEL, LIGHT, REFRIGERATION, AND HOUSEHOLD OPERATIONS.

U.S. DEPARTMENT OF AGRICULTURE

NEG. 4962-58 (3) AGRICULTURAL MARKETING SERVICE

Figure 3

Farm families spent \$138 million on prescription drugs in 1955. Nonprescription drugs, such as aspirin, laxatives, tonics, and other preparations which can be bought without a physician's prescription, accounted for another \$40 million of the bill farm families paid for health care. If we add the cost of vitamins and mineral tablets to prescribed and nonprescribed drugs, the bill incurred for all medications comes to \$203 million. This is \$2 million more than the amount spent for health insurance and emphasizes the importance of drug items in the health expenditures of farmers.

The only other sizable bill for health was that for eye tests and glasses. For the care of their eyes, farm people paid \$57 million (5 percent of their total health bill) in 1955. Aggregate expenditures for other items are as follows: Laboratory fees and X-rays, \$14.3 million; and supplies and appliances, \$7.5 million. All other expenditures, including those for osteopaths, nurses, other practitioners, ambulances, and unallocated costs amounted to \$97 million. The latter expenditures are not shown separately because of the relatively low frequency of use and a resultant high probability of sampling error. The survey provided no means of measuring how much availability influenced choice of expenditure items.

Regional variations in aggregate expenditures for health care are shown in table 2. Because of the great variation in number of farm families from one region to the other and within regions, detailed discussion is not given.

Average Expenditures for Health Care

While the total health bill of farm families throughout the United States and regions is enlightening, the study of costs on a per-family basis is equally significant. In this section average family expenditures for all health care and for specific items of care are discussed. Analyses include average expenditures per family having an outlay for each type of health care, as well as averages for all families, including those who did not have the expense.

Table 3 shows the average annual expenditure of all farm families on health care for the United States, major regions, and geographic divisions. All farm families spent an average of \$240 in 1955 for health care, including voluntary health insurance premiums. When only the families having expenses are averaged, the figure is slightly higher, \$243. As noted earlier in this report, only 1 percent of all farm families did not have any health expense in 1955. It is significant that expenditures for health care represented approximately 6 percent of the average farm family's net income. 9/

9/ The Farm Income Branch, Agricultural Marketing Service, U. S. Department of Agriculture estimates place the average income for farm families in the United States at \$3,934 in 1955.

Table 3.--Average expenditures of farm-operator families for specific items of health care, United States, regions, and geographic divisions, 1955 ^{1/}

| Area | Total | | Surgeons | | Other physicians, M. D. | | Dental care | | Hospital care | | Laboratory tests and X-rays | |
|-------------------------------|---------------------|------------------------------------|------------------------|------------------------------------|---------------------------------|------------------------------------|----------------------------|------------------------------------|--------------------------|------------------------------------|--------------------------------|------------------------------------|
| | All fam- lies | Families report- ing item | All fam- lies | Families report- ing item | All fam- lies | Families report- ing item | All fam- lies | Families report- ing item | All fam- lies | Families report- ing item | All fam- lies | Families report- ing item |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| United States | 240 | 243 | 11 | 114 | 49 | 66 | 28 | 51 | 31 | 148 | 3 | 25 |
| Regions | | | | | | | | | | | | |
| North ^{2/} | 241 | 242 | 11 | 105 | 48 | 64 | 31 | 51 | 28 | 125 | 3 | 24 |
| South | 222 | 226 | 7 | 99 | 47 | 65 | 20 | 44 | 32 | 167 | 2 | 26 |
| West | 333 | 337 | 28 | 189 | 56 | 79 | 50 | 81 | 44 | 172 | 6 | 28 |
| Geographic divisions | | | | | | | | | | | | |
| Northeast ^{2/} | 243 | 248 | 13 | 108 | 43 | 55 | 34 | 61 | 29 | 155 | 3 | 20 |
| East North Central .. | 246 | 247 | 9 | 102 | 52 | 66 | 32 | 54 | 23 | 112 | 4 | 27 |
| West North Central .. | 236 | 236 | 13 | 106 | 47 | 67 | 28 | 45 | 31 | 125 | 3 | 23 |
| South Atlantic | 239 | 244 | 8 | 95 | 50 | 69 | 18 | 41 | 40 | 181 | 2 | 26 |
| East South Central .. | 186 | 190 | 7 | 116 | 43 | 59 | 20 | 44 | 18 | 120 | 2 | 21 |
| West South Central .. | 243 | 245 | 6 | 89 | 49 | 67 | 23 | 49 | 40 | 187 | 4 | 29 |
| Mountain | 299 | 304 | 25 | 191 | 46 | 66 | 39 | 64 | 46 | 174 | 5 | 25 |
| Pacific | 359 | 362 | 29 | 188 | 63 | 89 | 58 | 94 | 43 | 171 | 6 | 30 |
| | | | | | | | | | | | | |
| | Prescribed drugs | | Nonprescribed drugs | | Vitamins and mineral tablets | | Supplies and appliances | | Eye tests and glasses | | Voluntary health insurance | |
| United States | 29 | 50 | 8 | 10 | 5 | 18 | 2 | 13 | 12 | 35 | 42 | 83 |
| Regions | | | | | | | | | | | | |
| North ^{2/} | 22 | 43 | 8 | 9 | 6 | 16 | 1 | 10 | 13 | 34 | 49 | 85 |
| South | 33 | 54 | 9 | 11 | 4 | 19 | 1 | 13 | 10 | 34 | 34 | 76 |
| West | 38 | 57 | 9 | 10 | 11 | 24 | 3 | 21 | 18 | 45 | 52 | 99 |
| Geographic divisions | | | | | | | | | | | | |
| Northeast ^{2/} | 20 | 38 | 7 | 9 | 6 | 19 | 2 | 13 | 14 | 35 | 57 | 84 |
| East North Central .. | 19 | 42 | 8 | 9 | 7 | 17 | 1 | 10 | 14 | 36 | 53 | 86 |
| West North Central .. | 26 | 46 | 7 | 8 | 5 | 14 | 1 | 9 | 12 | 32 | 42 | 85 |
| South Atlantic | 37 | 59 | 8 | 10 | 2 | 15 | 1 | 14 | 8 | 33 | 37 | 77 |
| East South Central .. | 27 | 47 | 9 | 10 | 3 | 15 | 2 | 16 | 9 | 32 | 30 | 69 |
| West South Central .. | 37 | 56 | 11 | 12 | 7 | 26 | 1 | 10 | 13 | 36 | 36 | 83 |
| Mountain | 36 | 55 | 9 | 10 | 9 | 22 | 2 | 15 | 18 | 42 | 48 | 91 |
| Pacific | 40 | 59 | 9 | 11 | 12 | 27 | 3 | 27 | 18 | 47 | 55 | 104 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

^{2/} Includes Delaware and Maryland.

Tabulations were made to ascertain how much individual items of health or medical care cost farm families during the course of a year. The various items are discussed separately. Expenditures are shown both as an average for all families and as an average for families having an expense. By comparing the two sets of averages it is possible to ascertain the types of care that involve greater costs to families having need for them. By referring to the percentage of families having the expense (table 1) it can be determined which items are used most frequently and thus increase all farm family costs.

In the total expense for health or medical care, the average amount spent by farm families in 1955 was greatest for physicians other than surgeons--\$49 per family. This compared with averages of \$28 for dentists and \$11 for surgeons. But the average cost for surgeons among families who had surgical expense was \$114. The average cost for medical doctors other than surgeons among families that reported this item of expense was \$66, the average cost for dental care, among those families with such an expense, was \$51.

Expenditures for prescribed drugs averaged \$29 in 1955 for all families, including those who made no purchase, as compared with \$8 for nonprescribed drugs and medicines, \$5 for vitamins and mineral tablets, and \$2 for miscellaneous supplies and appliances. Families having expenses for prescribed drugs spent an average of \$50, whereas families purchasing vitamins and mineral tablets averaged \$18 for these items. Families buying miscellaneous supplies and appliances spent an average of \$13 per family, and families purchasing nonprescribed drugs and medicines averaged \$10 for these items during the year.

Hospital costs ran higher than other health services for families using hospital service. Farm families that had a hospital experience incurred an average bill of \$148; the average cost for all families was \$31. Eye tests and glasses averaged \$12 for all farm families and \$35 for each family reporting expenditures of this nature. Laboratory tests and X-rays averaged \$3 for all families and \$25 for the families reporting the use of them during the year. Health insurance premiums averaged \$42 for all farm families in the United States; average cost to families buying such insurance was \$83.

Regional variations

Expenditures for health care by farm families residing in the Western Region were considerably greater than those made by farm families in the North and South in 1955 (figure 4). The average annual outlay of all farm families for health care was \$333 in the Western Region, but only \$241 in the North and \$222 in the South. Differentials here noted are related to differences in family size, family income, level of education, tenure status, and other socio-economic factors. Certain of these relationships will be brought out in later discussions.

Taken together, farm families in the West spent almost 2 1/2 times as much for surgeons as did farm families in the North and 4 times as much as farm families in the South. Farm families in the North and South spent about the same for physicians other than surgeons but farmers of the West spent somewhat more for these services. In expenditures for dentists, the West averaged highest on a per-family basis.

Hospital care represented a larger health expenditure item to farm families of the West than to families in the other regions. Southern families spent somewhat more for this type service than Northern families. Per-family expenditures were also higher in the West for laboratory tests and X-rays, eye tests and glasses, health insurance, prescribed drugs, and vitamins and mineral tablets. There is very little variation from one region to another in per-family expenditures for nonprescribed drugs, supplies and appliances.

Variations within regions

There was not a great deal of difference in average annual health expenditures reported for farm families in the various parts of the Northern Region--\$243 per family in the Northeast, \$246 per family in the East North Central Division, and \$236 per family in the West North Central Division. The South Atlantic and West South Central Divisions of the Southern Region had approximately the same annual average expenditure per farm family--\$239 for the former and \$243 for the latter. In contrast, families residing in the East South Central Division spent only \$186 per year for health care. Within the Western Region, farm families residing in the Pacific Division had the highest health expenditures, an average of \$359 per year as compared with an average of \$299 for families living in the Mountain Division.

Differentials in average expenditures of families reporting use of the various types of health care items perhaps are more enlightening than the average expenditures for all families. Within the Northern Region, it is especially noticeable that families using physicians other than surgeons in the Northeast paid less for such services than farm families in the East North Central and West North Central Divisions. Average expenditures for drug and supply items did not vary greatly from one part of the Northern Region to the other. However, hospital care cost farm families with such an expense considerably more in the Northeast than in the other parts of the Region. This could be explained by the larger average per-family unallocated costs in the East North Central and West North Central Divisions which may well include sizable hospital bills. There is no significant difference in expenditures for the remaining items of health care tabulated.

COST OF INDIVIDUAL ITEMS OF HEALTH CARE TO FARM-OPERATOR FAMILIES HAVING THE SPECIFIED EXPENSE, 1955 *

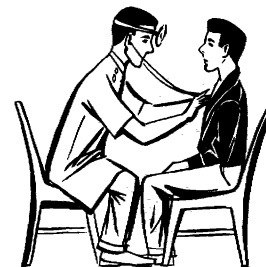
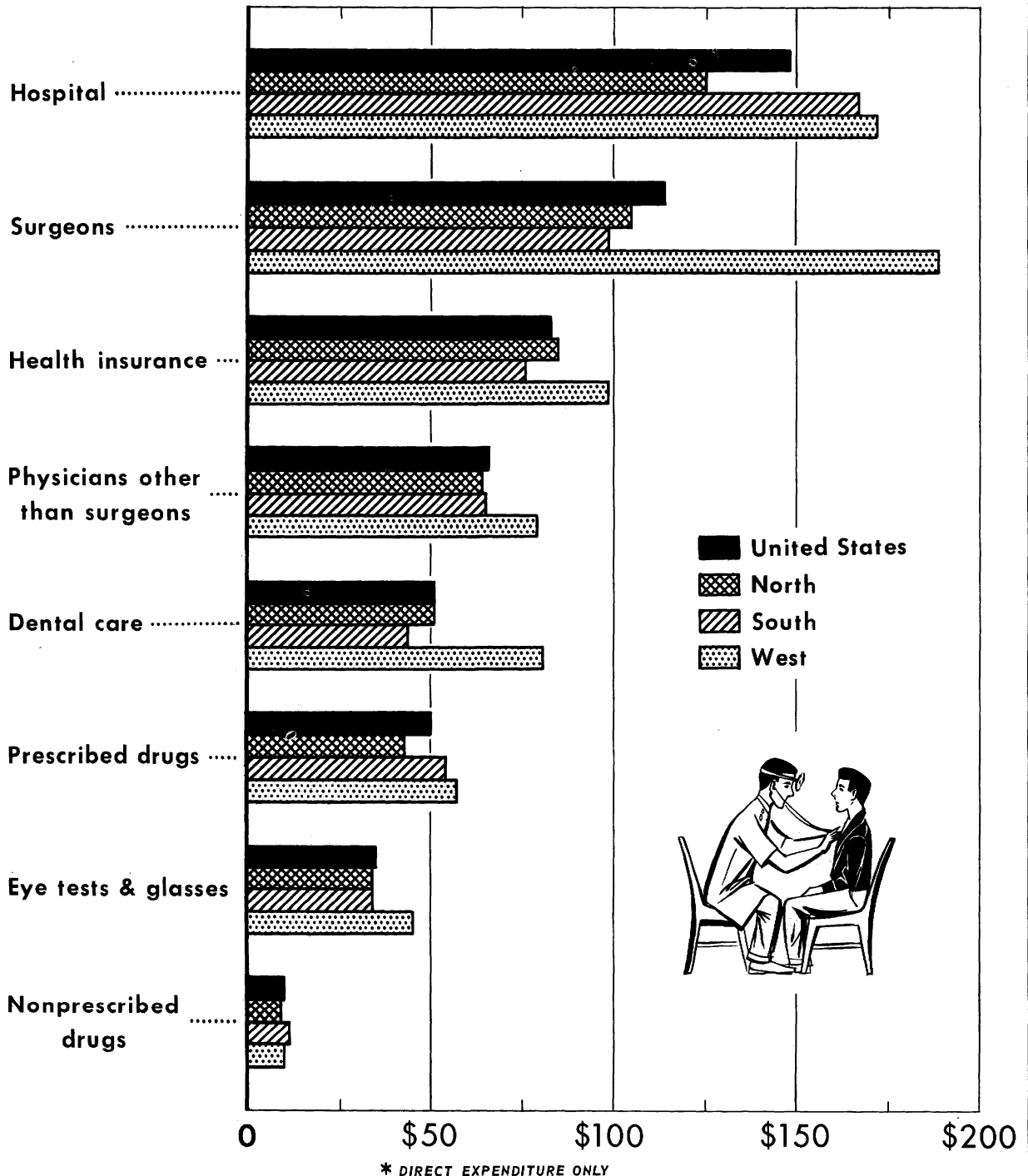


Figure 4

In the South, the following divisional variations stand out in families reporting the specific items of care: Higher expenditure for surgeons in the East South Central Division; higher outlays for vitamins and mineral tablets in the West South Central Division; and smaller expenditures for hospital care in the East South Central Division.

Within the Western Region there were significant differences in average costs to families having certain expenses. Expenditures in the Mountain Division are considerably lower for physicians other than surgeons, dentists, nurses, supplies and appliances, and health insurance.

Distribution of Health Care Expenditures by Individual Items

What proportion of the health dollars spent by farm families goes for each type of health care? Figure 5 shows the distribution of expenditures by individual items of health care for farm families of the United States and the major regions in 1955. The United States average can be used as a basis of comparison in studying the patterns of expenditures of the various classes and groups discussed in the following part of this report.

Four items account for three-fourths of the average farm family's health care dollar. In order of importance these are: Physicians' and surgeons' services, 25 cents of every dollar; drugs and vitamins, 18 cents; insurance premiums, 18 cents; and hospital care, 13 cents of every dollar. Dental care expenditures account for 11 cents of each of the health care dollars spent by farm families, and eye care takes up another 5 cents. The dime remaining is divided among the miscellaneous other items of expense.

Regional variations

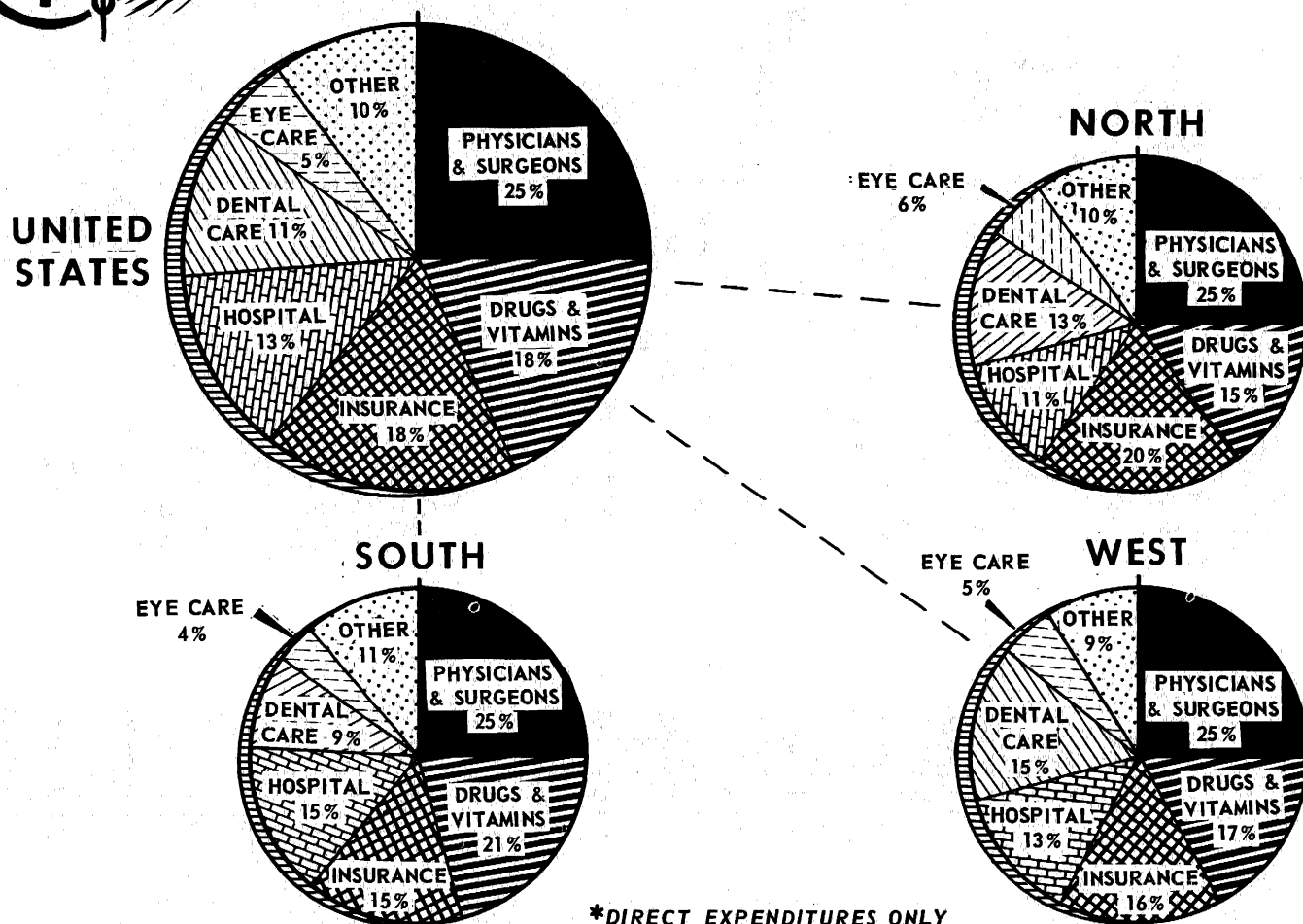
Farmers in the three major regions spent their health dollars in slightly different fashion, although 25 cents of every health dollar spent in each region goes for the services of physicians and surgeons. The major variations are listed below and can be seen graphically in figure 5.

Farm families of the South devote a slightly larger percentage of their health expenditures (21 percent) to drugs and vitamins than do farm families of the North (15 percent) and West (17 percent). In the North a considerably higher proportion of each family's health dollar (20 cents) is spent for health insurance than in the West (16 cents) and South (15 cents). This is an interesting pattern and is no doubt related to the fact that the families of the North have a smaller direct outlay for hospital care than do families in the other regions.

Dental care takes up a larger part of each farm family's health dollar in the Western Region (15 cents) than in the North (13 cents) or South (11 cents). The percentage of all health care expenditures for eye care and other items does not vary greatly from one of the major regions to the other.



HOW FARM-OPERATOR FAMILIES SPENT THEIR HEALTH DOLLARS IN 1955*



*DIRECT EXPENDITURES ONLY

SELECTED FACTORS RELATED TO EXPENDITURES OF FARM FAMILIES FOR HEALTH CARE

Expenditures of farm-operator families for health care services are influenced by many socio-economic factors. In this part of the report, the relationships of the economic group of farm, age of operator, total family living expenditures, total health care expenditures, and size of family to spending patterns for different health care services are examined.

Health Care Expenditures Related to Economic Group of Farm

Survey data were tabulated by three economic groups of farms which were formed by combining the 8 economic classes of farms used in the 1954 Census of Agriculture. The combinations used were: Economic Group 1--Economic Classes I and II; Economic Group 2--Economic Classes III, IV, and V; Economic Group 3--Economic Classes VI, VII, (part-time), and VIII (residential).

The division of farms by economic class was made for the purpose of segregating groups of farms that were somewhat alike in their characteristics and size of operations. Classification was made on the basis of three factors: (1) Total value of all farm products sold; (2) number of days the farm operator worked off the farm; and (3) the relationship of the income received from nonfarm sources by the operator and members of his family to the value of all farm products sold. Economic Group 1 (14 percent of all farms) includes the larger commercial farms, those with a value of farm products sold of \$10,000 or over; Economic Group 2 (45 percent of all farms) includes farms with a value of farm products sold from \$1,200 to \$9,999; Economic Group 3 (41 percent of all farms) includes farms selling less than \$1,200 of farm products, part-time and residential farms. 10/

Farm families operating Economic Group 1 farms had the highest health care outlay in 1955, \$325 per family. Those families operating Economic Group 2 farms had an average expenditure of \$241, and families on Economic Group 3 farms spent an average of \$211 per family for health care services (table 4).

Average per family expenditures for each type of health service also varied by economic group of farm. Farm families operating Economic Group 1 farms consistently had the highest average expenditures and families operating Economic Group 3 farms generally had the lowest average expenditures for each type of service. The expenditures of families operating Economic Group 2 farms were closer to the amount spent by families operating Economic Group 3 farms.

There was a similarity in the expenditure patterns of farm families for different health services regardless of economic groups of farm in 1955. The greatest variation among families in the various economic groups of farms was

10/ "Farmers and Farm Production in the United States," 1954 Census of Agriculture, Special Report, Vol. III, part 9, 1956.

Table 4.--Average expenditures of farm-operator families for specific items of health care by economic group of farm, United States, 1955 1/

| Health care services | Economic group of farm | | |
|---|------------------------|---------|---------|
| | One | Two | Three |
| | Dollars | Dollars | Dollars |
| All services..... | 325 | 241 | 211 |
| Health insurance premiums..... | 57 | 44 | 35 |
| Physicians..... | 82 | 59 | 52 |
| Surgeons..... | 16 | 11 | 8 |
| Other physicians, M. D..... | 66 | 48 | 44 |
| Dental care..... | 50 | 27 | 21 |
| Osteopaths, nursing care, and other practitioners..... | 11 | 7 | 6 |
| Hospital care..... | 38 | 31 | 30 |
| Eye tests and glasses..... | 18 | 13 | 9 |
| Drugs, prescribed..... | 33 | 28 | 29 |
| Drugs, nonprescribed 2/..... | 18 | 14 | 12 |
| Other services and unallocated expenditures 3/..... | 18 | 18 | 17 |

1/ Only direct or out-of-pocket expenditures of farm families are included. 2/ Vitamins and mineral tablets are included. 3/ Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

Table 5.--Percentage distribution of farm-operator family expenditures, for health care by item according to economic group of farm, United States, 1955 1/

| Health care services | Economic group of farm | | |
|---|------------------------|---------|---------|
| | One | Two | Three |
| | Percent | Percent | Percent |
| All services..... | 100 | 100 | 100 |
| Health insurance premiums..... | 18 | 18 | 17 |
| Physicians..... | 25 | 25 | 25 |
| Surgeons..... | 5 | 5 | 4 |
| Other physicians, M. D..... | 20 | 20 | 21 |
| Dental care..... | 15 | 11 | 9 |
| Osteopaths, nursing care, and other practitioners..... | 3 | 3 | 3 |
| Hospital care..... | 12 | 13 | 14 |
| Eye tests and glasses..... | 5 | 5 | 4 |
| Drugs, prescribed..... | 10 | 11 | 14 |
| Drugs, nonprescribed 2/..... | 6 | 6 | 6 |
| Other services and unallocated expenditures 3/..... | 6 | 8 | 8 |

1/ Only direct or out-of-pocket expenditures of farm families are included. 2/ Vitamins and mineral tablets are included. 3/ Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

in share of out-of-pocket health dollar going for dental services. Those farm families operating the larger commercial farms (Economic Group 1) spent about 15 cents of their health dollar for dental services, those operating Economic Group 2 farms spent 11 cents, and the farm-operator families on Economic Group 3 farms spent only about 9 cents per health dollar for the services of dentists (table 5).

Farm family drug expenditures also varied according to economic group of farm. Families operating Economic Group 3 units averaged about 20 cents per health dollar for drugs, whereas those operating Economic Groups 1 and 2 farms averaged around 16 cents for drug outlays. The proportion of total health expenditures used directly for hospital care was somewhat higher for those families operating Economic Group 3 farms than for those on the other two economic groups of farms.

Health Care Expenditures Related to Age of Farm Operator

Farm operators were divided into four age groups as follows: Under 35 years, 35-54 years, 55-64 years, and 65 years and over. These age groupings are associated fairly closely with family cycle stages, and are enlightening in this sense.

Families where the farm operator was 35-54 years of age had the largest expenses for health care, an average of \$259 per family (table 6). Those families with operators under 35 years of age, 55-64 years of age, and 65 years of age and over had approximately the same average outlays, around \$224 per family.

There were distinctive variations in farm family disbursements for different health care services by age of operator in 1955. Outlays for dental services stand out in this respect -- families of operators 35-54 years of age had the highest per family dental expenditure of \$35 and families with operators over 65 years of age had the lowest average dental costs, about \$14.

Direct expenditures for hospital care varied little among families with operators under 35 years of age, 35-54 years of age, and 55-64 years of age. But there was a sharp increase in average family outlay for hospital care where operators were 65 years of age or over. Average expenditures for drugs varied little from family to family, regardless of age of operator.

With the exception of expenditures for surgical care and drugs, the distribution of the health care dollar expended by farm families varied with the age of the operator (table 7). Families with operators 55-64 years of age averaged spending about 22 cents of their health dollar for physicians' services. By comparison, families with the youngest and the oldest farm operators spent about 28 cents for a physician's care. As already noted, families with operators under 65 years of age varied little in expenses for direct hospital care -- around 12 cents of their health dollar -- whereas families with operators 65 years and over averaged 20 cents of their health dollar for hospitals.

Table 6.--Average expenditures of farm-operator families for specific items of health care by age of operator, United States, 1955 ^{1/}

| Health care services | Age of operator | | | |
|--|-----------------|---------|---------|----------|
| | Under | 35-54 | 55-64 | 65 years |
| | 35 years | years | years | and over |
| | Dollars | Dollars | Dollars | Dollars |
| All services..... | 223 | 259 | 224 | 224 |
| Health insurance premiums..... | 46 | 48 | 40 | 28 |
| Physicians..... | 62 | 62 | 50 | 62 |
| Surgeons..... | 8 | 12 | 9 | 13 |
| Other physicians, M. D..... | 54 | 50 | 41 | 49 |
| Dental care..... | 28 | 35 | 23 | 14 |
| Osteopaths, nursing care, and other practitioners..... | 3 | 8 | 7 | 9 |
| Hospital care..... | 28 | 29 | 27 | 45 |
| Eye tests and glasses..... | 7 | 14 | 13 | 9 |
| Drugs, prescribed..... | 27 | 29 | 28 | 32 |
| Drugs, nonprescribed ^{2/} | 13 | 16 | 12 | 10 |
| Other services and unallocated expenditures ^{3/} | 9 | 18 | 24 | 15 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included. ^{2/} Vitamins and mineral tablets are included. ^{3/} Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

Table 7.--Percentage distribution of farm-operator family expenditures for health care by item according to age of operator, United States, 1955 ^{1/}

| Health care services | Age of operator | | | |
|--|-----------------|---------|---------|----------|
| | Under | 35-54 | 55-64 | 65 years |
| | 35 years | years | years | and over |
| | Percent | Percent | Percent | Percent |
| All services..... | 100 | 100 | 100 | 100 |
| Health insurance premiums..... | 21 | 19 | 18 | 13 |
| Physicians..... | 28 | 24 | 22 | 27 |
| Surgeons..... | 3 | 5 | 4 | 6 |
| Other physicians, M.D..... | 25 | 19 | 18 | 21 |
| Dental care..... | 13 | 14 | 10 | 6 |
| Osteopaths, nursing care, and other practitioners..... | 1 | 3 | 3 | 4 |
| Hospital care..... | 12 | 11 | 12 | 20 |
| Eye tests and glasses..... | 3 | 5 | 6 | 4 |
| Drugs, prescribed..... | 12 | 11 | 13 | 14 |
| Drugs, nonprescribed ^{2/} | 6 | 6 | 5 | 5 |
| Other services and unallocated expenditures ^{3/} | 4 | 7 | 11 | 7 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included. ^{2/} Vitamins and mineral tablets are included. ^{3/} Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

Health Care Expenditures Related to Farm Family Living Expenditures

Total outlay for family living serves as a useful measure of level of living. In the survey for this report, family living expenditures included the total money expense paid or incurred in 1955, whether or not all payment was made during the year. Health care expenditures were, of course, included in the family living outlays. Living expenditures did not include estimates of the value of home-produced food or clothing.

For the purpose of ascertaining the relationship between total living expenditures and the outlays for health care services, farm-operator families were divided into four family living expenditure groups. These 4 groups were selected after examining 12 detailed expenditure groupings for their association with health out-of-pocket outlays:

| Family living expenditure groups | Percentage of all farm-operator families |
|----------------------------------|--|
| Total families | 100 |
| Under \$1,500 | 20 |
| \$1,500-\$2,999 | 37 |
| \$3,000-\$4,999 | 30 |
| \$5,000-and over | 13 |

As shown in table 8, there was a marked increase in the outlays for health care as farm family living expenditures increased. In 1955, those families with less than \$1,500 family living expenditures averaged health outlays of about \$89, those with \$1,500-\$2,999 averaged \$192, those with \$3,000-\$4,999 averaged \$293, and the farm families having living expenditures of \$5,000 and over had health care expenditures of \$490 per family. The average farm family in the United States spent 7 percent of its total family living expenditures for health care.

Average out-of-pocket outlays for health care rose as family living expenditures increased. The differentials in average outlays by family living expenditures were particularly marked for dentists, surgeons, and other services.

Farm families averaged about 13 cents of their health dollar in direct expenditures for hospital care regardless of family living expenses (table 9). The proportion of the health dollar going for drugs was highest, 23 cents, for families having less than \$1,500 living expenditures, and lowest, 15 cents for families having living expenditures of \$5,000 and over. The proportion of the health care dollar going for eye care fluctuated little between family living expenditure groups.

Table 8.--Average expenditures of farm-operator families for specific items of health care by total family living expenditures, United States, 1955 ^{1/}

| Health care services | Family living expenditures | | | |
|--|----------------------------|----------|----------|----------|
| | Under | \$1,500- | \$3,000- | \$5,000 |
| | \$1,500 | \$2,999 | \$4,999 | and over |
| | Dollars | Dollars | Dollars | Dollars |
| All services | 89 | 192 | 293 | 490 |
| Health insurance premiums | 14 | 34 | 57 | 77 |
| Physicians | 24 | 52 | 68 | 113 |
| Surgeons | 2 | 8 | 12 | 29 |
| Other physicians, M. D. | 22 | 44 | 56 | 84 |
| Dental care | 6 | 17 | 35 | 74 |
| Osteopaths, nursing care, and other practitioners | 3 | 7 | 8 | 13 |
| Hospital care | 12 | 26 | 37 | 65 |
| Eye tests and glasses | 5 | 9 | 15 | 24 |
| Drugs, prescribed | 14 | 25 | 34 | 51 |
| Drugs, nonprescribed ^{2/} | 7 | 12 | 17 | 22 |
| Other services and unallo- cated expenditures ^{3/} | 4 | 10 | 22 | 51 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.
^{2/} Vitamins and mineral tablets are included. ^{3/} Appliances and supplies, laboratory tests and X-rays, ambulances, and unallocated expenditures are combined.

Farm families having living expenditures of less than \$1,500 spent 25 cents of their health dollar for the services of a physician other than a surgeon. As living expenditures increased, the share of each family's health dollar spent for these services declined. Families in the living expenditure group of \$5,000 and over spent an average of 17 cents of their health dollar for the services of physicians other than surgeons. In contrast, the proportion of the health care dollar used directly for the services of surgeons increased somewhat as living expenditures increased.

In 1955, the proportion of the farm family health dollar spent for dental care rose more sharply than all other individual types of health care services. Families whose living costs were less than \$1,500 during the year averaged 7 cents per health dollar for dentists' services, while families whose living costs were at least \$5,000 averaged 15 cents.

There was little variation between living expenditure groups in the proportion of the family health care dollar going for health insurance premiums. The farm families having less than \$1,500 living expenditures and those expending \$5,000 or more spent about 16 cents of their respective health dollar for premiums. Families in the \$1,500-\$2,999 living expenditures group spent 18 cents and families with \$3,000-\$4,999 living expenditures spent 19 cents of their health dollar in this way.

Table 9.--Percentage distribution of farm-operator family expenditures for health care by item according to total family living expenditures, United States, 1955 ^{1/}

| Health care services | Family living expenditures | | | |
|--|----------------------------|----------|----------|----------|
| | Under | \$1,500- | \$3,000- | \$5,000 |
| | \$1,500 | \$2,999 | \$4,999 | and over |
| | Percent | Percent | Percent | Percent |
| All services..... | 100 | 100 | 100 | 100 |
| Health insurance premiums..... | 16 | 18 | 19 | 16 |
| Physicians..... | 28 | 27 | 23 | 23 |
| Surgeons..... | 3 | 4 | 4 | 6 |
| Other physicians, M. D..... | 25 | 23 | 19 | 17 |
| Dental care..... | 7 | 9 | 12 | 15 |
| Osteopaths, nursing care, and other practitioners..... | 3 | 4 | 3 | 3 |
| Hospital care..... | 13 | 13 | 12 | 13 |
| Eye tests and glasses..... | 6 | 5 | 5 | 5 |
| Drugs, prescribed..... | 15 | 13 | 12 | 10 |
| Drugs, nonprescribed ^{2/} | 8 | 6 | 6 | 5 |
| Other services and unallocated expenditures ^{3/} | 4 | 5 | 8 | 10 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

^{2/} Vitamins and mineral tablets are included.

^{3/} Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

Health Care Expenditures Related to Total Cost of Health Care

Health care costs vary in such a way as to be unpredictable for the individual family. However, health costs are relatively stable and predictable for groups of families. The frequency distribution of farm-operator families according to total outlays for health care appearing below shows the proportion of families having different amounts of health expenses in a given year.

| Medical care expenditure groups | : | Percentage of all farm- operator families |
|------------------------------------|---|--|
| Total families | : | 100 |
| 0 - | : | 1 |
| \$1-\$49 | : | 17 |
| \$50-\$99 | : | 14 |
| \$100-\$199 | : | 25 |
| \$200-\$299 | : | 17 |
| \$300-\$499 | : | 15 |
| \$500-and over | : | 11 |

At one extreme, only 1 percent of the farm families had no health outlay in 1955, whereas, at the other extreme, about 11 percent of the families had health expenditures amounting to \$500 or more during the year. This latter group incurred about 37 percent of the total health care expenses recorded for all farm families. A more detailed distribution of families by health expenditure classes is shown in figure 6.

Seventeen percent of all farm-operator families spent \$1-\$49 on health care in 1955. The average amount spent by this group was approximately \$23 per family (table 10). Average expenditures increased steadily to a high of \$828 for those families in the highest expenditure group, \$500 and over.

While the average out-of-pocket family outlays for each type of service increased considerably with increased total expenditures for health care in 1955, average increases show some variation. The sharpest step-up in average outlays was in direct expenditures for hospital care. Few families with total health expenditures of \$1 to \$49 had hospital expenses -- average hospital expense for families in this group was less than \$1. In contrast, almost all families having \$500 or more of health care expenditures had a hospital bill. These bills averaged \$189 in direct outlays for hospitals per family. There was also a marked increase in average expenditures for surgical care with increases in total health care expenses. Outlays for prescribed drugs also increased rapidly as total health expenditures increased. The increase in average expenditures for services of physicians other than surgeons and for dentists was steady but not as high as for the other items of health care. Eye tests and glasses and nonprescribed drugs showed the lowest rate of increase from the \$1-49 to \$500 and over expenditure classes.

DISTRIBUTION OF FARM-OPERATOR FAMILIES BY AMOUNT OF EXPENDITURES FOR HEALTH CARE, 1955

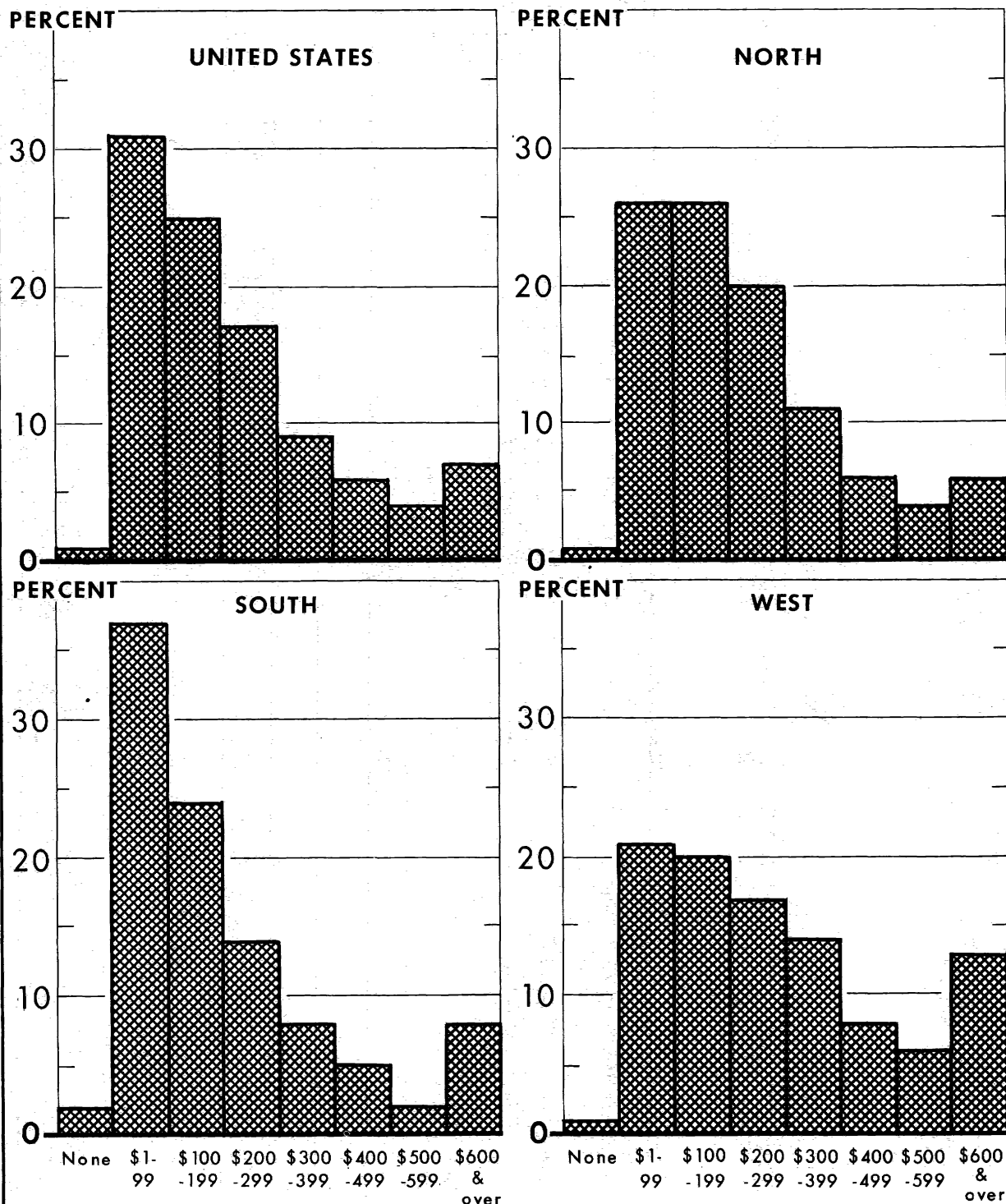


Figure 6

Table 10.--Average expenditures of farm-operator families for specific items of health care by total expenditures for health care, United States, 1955 ^{1/}

| Health care services | Total expenditures for health care | | | | | |
|---|------------------------------------|---------|-----------|-----------|-----------|----------------|
| | \$1-49 | \$50-99 | \$100-199 | \$200-299 | \$300-499 | \$500 and over |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| All services..... | 23 | 73 | 148 | 245 | 383 | 828 |
| Health insurance premiums..... | 2 | 14 | 40 | 64 | 76 | 71 |
| Physicians..... | 7 | 20 | 35 | 59 | 93 | 210 |
| Surgeons..... | * | * | 1 | 5 | 14 | 70 |
| Other physicians, M. D..... | 7 | 20 | 34 | 54 | 79 | 140 |
| Dental care..... | 3 | 8 | 17 | 29 | 56 | 75 |
| Osteopaths, nursing care, and other practitioners..... | * | 2 | 4 | 7 | 11 | 28 |
| Hospital care..... | * | 2 | 5 | 18 | 41 | 189 |
| Eye tests and glasses..... | 3 | 7 | 12 | 14 | 19 | 23 |
| Drugs, prescribed..... | 2 | 8 | 17 | 31 | 48 | 97 |
| Drugs, nonprescribed, ^{2/} | 5 | 9 | 13 | 14 | 21 | 27 |
| Other services and unallocated expenditures ^{3/} | 1 | 3 | 5 | 9 | 18 | 108 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

^{2/} Vitamins and mineral tablets are included.

^{3/} Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

* Less than \$1.

Farm families in the respective groupings averaged spending from 24 cents to 29 cents of their health dollar for services of physicians and surgeons. The share of the health care dollar going for prescribed drugs was more or less constant from one health care expenditure class to another. Proportionate expenditures for nonprescribed drugs decreased steadily from the \$1 to 49 group to the \$500-and-over group. The out-of-pocket share of the dollar going for dental care was about the same in all health expenditure groups, except for a drop in the \$500-and-over group (table 11).

Of all the individual health services, the rise in the share of the farm family health dollar expended by health expenditure groups was most pronounced for hospital care. Families in the lowest health expenditure group had direct outlays of only about 1 percent of their health dollar for hospitals, but families in the \$500-and-over expenditure group had an average outlay of 23 percent.

Health Care Expenditures Related to Size of Family

How does size affect farm family expenditure patterns for health care? Although data comparable to those used in the preceding tables were not available, the average expenditures per farm family in 1955 for health care services by size of economic family, shown in table 12, relate to the question.

Those farm families having 5 persons per family had the highest average expenditures in 1955, \$269, for health care. There was relatively little difference in average health outlays between those families with 3 persons, and those with 4 persons per family. For the larger families, 7 persons or more, the average expenditure was only \$250 per family. In families of 2 persons, health care spending averaged \$220, and for persons living alone the average outlay was \$80.

The average expenditures for voluntary health insurance premiums were highest, \$56, for those families with 5 persons. Average expenditures for insurance premiums were considerably less for families with six or more persons and were lowest for economic units of one person.

All other direct expenditures for health care services averaged about the same for all families having three or more persons, around \$212. Families with two persons averaged \$187 in direct expenditures for health services. Outlays were less for persons living alone, \$63.

The distribution pattern of the farm family health dollar for health insurance premiums and for direct expenditures for health services varied slightly from one family size group to the next (table 13). Economic family units of 1 person spent approximately 22 cents of their health dollar for insurance premiums, while family units of 2 persons averaged spending 15 cents for health insurance. All the other size-of-family groups spent between 17 and 21 cents per out-of-pocket health dollar for insurance premiums.

Table 11.--Percentage distribution of farm-operator family expenditures for health care by item according to total expenditures for health care, United States, 1955 ^{1/}

| Health care services | Total expenditures for health care | | | | | |
|--|------------------------------------|---------|-----------|-----------|-----------|----------------|
| | \$1-49 | \$50-99 | \$100-199 | \$200-299 | \$300-499 | \$500 and over |
| | Percent | Percent | Percent | Percent | Percent | Percent |
| All services | 100 | 100 | 100 | 100 | 100 | 100 |
| Health insurance premiums | 7 | 20 | 27 | 26 | 20 | 9 |
| Physicians | 29 | 27 | 24 | 24 | 24 | 25 |
| Surgeons | * | * | 1 | 2 | 3 | 8 |
| Other physicians, M. D. | 29 | 27 | 23 | 22 | 21 | 17 |
| Dental care | 14 | 11 | 12 | 12 | 14 | 9 |
| Osteopaths, nursing care, and other practitioners | 2 | 2 | 3 | 3 | 3 | 3 |
| Hospital care | 1 | 2 | 3 | 7 | 11 | 23 |
| Eye tests and glasses | 13 | 10 | 8 | 5 | 5 | 3 |
| Drugs, prescribed | 10 | 12 | 11 | 13 | 13 | 12 |
| Drugs, nonprescribed ^{2/} | 22 | 12 | 9 | 6 | 5 | 3 |
| Other services and unallocated expenditures ^{3/} | 2 | 4 | 3 | 4 | 5 | 13 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

^{2/} Vitamins and mineral tablets are included.

^{3/} Appliances and supplies, laboratory tests and X-rays, ambulance, and unallocated expenditures are combined.

* Less than 1 percent.

Table 12.--Average expenditures of farm-operator families for health care services by size of economic family, United States, 1955 ^{1/}

| Size of economic family | Health care services | | |
|-------------------------|----------------------|---------------------------|------------------------|
| | All services | Health insurance premiums | All other expenditures |
| | <u>Dollars</u> | <u>Dollars</u> | <u>Dollars</u> |
| 1 person | 80 | 17 | 63 |
| 2 persons | 220 | 33 | 187 |
| 3 persons | 260 | 44 | 216 |
| 4 persons | 263 | 51 | 212 |
| 5 persons | 269 | 56 | 213 |
| 6 persons | 258 | 43 | 215 |
| 7 or more persons | 250 | 44 | 206 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

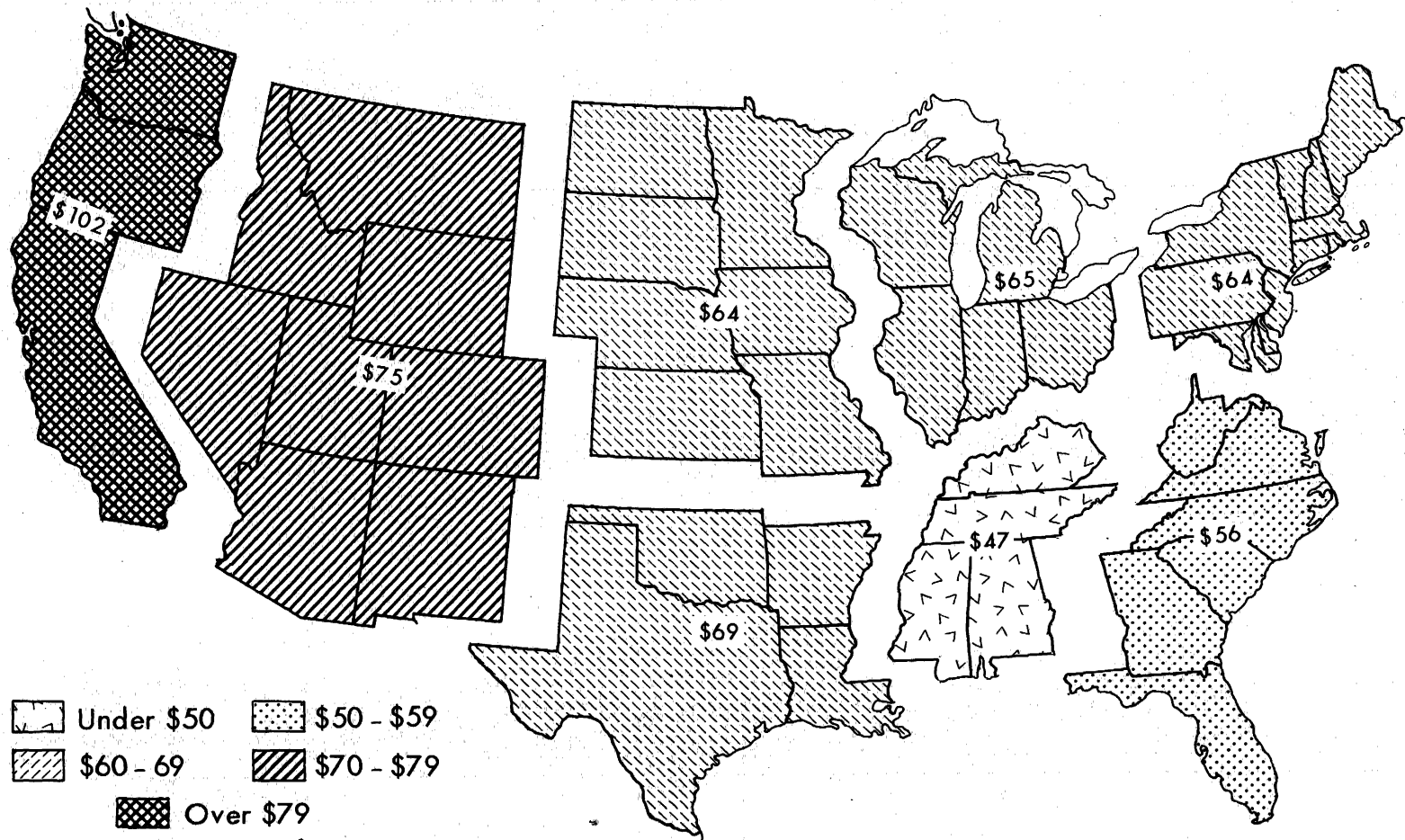
Table 13.--Percentage distribution of farm-operator family expenditures for health care services according to size of economic family, United States, 1955 ^{1/}

| Size of economic family | Health care services | | |
|-------------------------|----------------------|---------------------------|------------------------|
| | All services | Health insurance premiums | All other expenditures |
| | <u>Percent</u> | <u>Percent</u> | <u>Percent</u> |
| 1 person | 100 | 22 | 78 |
| 2 persons | 100 | 15 | 85 |
| 3 persons | 100 | 17 | 83 |
| 4 persons | 100 | 20 | 80 |
| 5 persons | 100 | 21 | 79 |
| 6 persons | 100 | 17 | 83 |
| 7 or more persons | 100 | 18 | 82 |

^{1/} Only direct or out-of-pocket expenditures of farm families are included.

Figure 7 was prepared to show regional variations in average per person expenditures for health care in farm-operator families. Per person costs are highest in the Pacific Division and lowest in the East South Central Division of the Southern Region.

WHAT HEALTH CARE COST EACH FARM-OPERATOR FAMILY MEMBER IN 1955



U. S. DEPARTMENT OF AGRICULTURE

NEG. 4966-58(3) AGRICULTURAL MARKETING SERVICE

Figure 7

APPENDIX

Methods and Procedure of the Special Cooperative Survey of Farmers' Expenditures

Data for this study were obtained from the recent national survey of farmers' expenditures. This special cooperative survey is described in this appendix. ^{12/}

Purpose of the study

The primary purpose of the survey was twofold: (1) To provide a set of weights reflecting expenditure patterns of a recent year for use in calculating the parity index, and (2) to improve the basis for estimating farm operators' production expenses. A third major reason for the survey, and the one pertinent to this report, was to provide information on farm-family living and production expenditure patterns for a recent period. A fourth reason was to provide comprehensive information on the size of the post-war farm market.

Agencies participating in the survey

The U. S. Department of Agriculture was responsible for initiating, planning, and conducting the survey. Personnel of the Department developed the sample, prepared the survey forms and instructions to enumerators, did the field work, and prepared plans for tabulation. The U. S. Bureau of the Census provided the basic lists from which the sample was drawn and furnished certain personnel and the machines necessary to make tabulations of data collected, and cooperated in publication of the first results of the survey.

Within the Department of Agriculture, the major responsibilities were in the Agricultural Marketing Service, although significant contributions were made in the planning and conducting of the study by the Institute of Home Economics of the Agricultural Research Service.

Design of the sample

The 1954 Census of Agriculture was used as a basis for sampling, principally because it provided an easy method for varying the sample rate. Economic class and total number of farms were taken into account in the over-all sample design. In all, 11,869 farms were selected in 306 primary sampling units. Of these farms, 7,378 were in the A Sample, designed to determine production expenses, and 4,491 in the B Sample, designed for obtaining family living expenses. The B Sample supplied data for this study. Altogether, 3,985 schedules on family living expenses were taken. The sample was designed to provide estimates for 8 geographic divisions, coextensive with the 9 census divisions, except that the New England and Middle Atlantic States, plus Maryland and Delaware, where combined to form the Northeast Region. Within each region, the A and B Samples were allocated to 3 economic groups

^{12/} For a more detailed discussion see: "Farmers' Expenditures for farm Living and Production," op. cit.

of farms, which were formed by combining the 8 economic classes used in the Census of Agriculture as follows: Group 1--Economic Classes I and II; Group 2--Economic Classes III, IV, and V; Group 3--Economic Classes VI, VII, and VIII.

Collection procedure

The survey was conducted during February and March 1956. All the information was obtained by direct interviews with the farm operator and the housewife. Local interviewers were hired and trained under the supervision of State statisticians. Expenditure items were reported in detail under 15 major groups of goods and services for family living. The average interview lasted 3 hours. Interviewers asked for expenditures for the calendar year 1955.

Expansion of the sample

Estimates contained in this report were expanded to correspond to the population of farms actually enumerated in the 1954 Census of Agriculture, with allowance for the downward trend in the number of farms to the time of the survey.

Limitation of data and sampling error

Expenditure studies raise difficult problems, one of which is the inability of respondents accurately to recall expenditures made at some earlier period. This problem was minimized in so far as possible by designing the schedules to provide aids to recall. Places where under-reporting appeared to be likely are noted in the text.

The total error of any survey estimate is a combination of sampling error and the errors due to biases and reporting errors. It was possible to estimate the sampling error of certain family living expenditure group and item estimates, on the assumption that simple random sampling had been employed. These estimates for medical expenditures indicate the chances are about 19 in 20 that the estimated averages would differ from the results of a complete enumeration by not more than 3 percent for the United States, 5 percent for the Northern Region, 7 percent for the Southern Region, 9 percent for the Western Region, 10 percent for the Northeast Region, 8 percent for the East North Central Division, 7 percent for the West North Central Division, 14 percent for the South Atlantic Division, 11 percent for the East South Central Division, West South Central Division and Mountain Division, and 13 percent for the Pacific Division. The above estimates of sampling error must be considered only as approximations since the method of calculation for simple random sampling does not take into account (1) the losses in efficiency due to clustering or (2) the gains due to stratification.

Many of the detailed data given in this report for the eight regions and for the various classifications of farm-operator families are subject to relatively large sampling errors, and have been used with caution. However, the percentages and averages per family are, in general, subject to smaller sampling errors than the totals from which they are derived.

Estimates for the regions and divisions are subject to sampling errors from 2 to 6 times as large as for United States estimates. The sampling errors are also larger when the proportion of families purchasing or reporting the specified item is small. For example, the percent of families reporting expenditures for surgeons (9 percent) is subject to a larger relative error than the percent of families reporting expenditures for other physicians (74 percent).